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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,129	12/19/2000	Hiroaki Kubo	15162/02980	6370

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EXAMINER

HANNETT, JAMES M

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 06/21/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,129

Applicant(s)

KUBO, HIROAKI

Examiner

James M Hannett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 9 and 14 is/are rejected.
- 7) ☒ Claim(s) 10-13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Digital Camera that displays a previously captured image on an LCD when a Half-Mirror is in motion.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1: Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,936,668

Sawanobori et al.

2: As For Claim 9, Sawanobori et al teaches in Figures 1 and 2 a digital camera comprising: a taking lens (14a); an image sensor (15) for receiving light from the taking lens (14a) to produce an image data; an Sawanobori et al teaches in Figures 1 and 2 the use of a digital camera that uses a Half-mirror (14c) to allows a digital camera to have a viewfinder (14) and an LCD display (17). Sawanobori et al teaches on Column 1, Lines 16-27 and Column 4, Lines 13-26 and on Column 5, Lines 40-65 that it is advantageous to display on an LCD in real time the images captured by the CCD image sensor so that an image that is corrected using white balance can be displayed by the camera operator before the image is captured using a recording operation. Sawanobori et al teaches that during a monitor through mode the image captured by the image

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sensor is stored in an image memory and is then output to the LCD display. Furthermore, because the image is displayed on the LCD screen in real time, the image would be displayed at all times and therefore, would be displayed before, during and after an instruction to move the quick return mirror was executed. The refreshing of the LCD screen is viewed by the examiner as gradually changing the image displayed on the display.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3: Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,741,284

Shono In view of USPN 5,936,668 Sawanobori et al.

4: In regards to Claim 14, Shono teaches a digital camera comprising: a taking lens (10); an image sensor (12) for receiving light from the taking lens (10) to produce an image data; an instruction member (35) for providing an instruction to record an image data into the recording medium; Column 2, Lines 41-67. Shono teaches an optical element (11) disposed so as to be situated in an advanced position that intersects an optical path (X) leading from the taking lens (10) to the image sensor (12) and in a retracted position (21) that is off the optical path (X). Shono teaches a driver (27) for moving the optical element (11) to the retracted position when the instruction to record an image data (Photographing operation) is provided by the instruction

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member (35), and for moving the optical element (11) to the advanced position after shooting of the image to be recorded into the recording medium is finished; Column 4, Lines 8-34.

Shono teaches the use of an SLR digital camera that has a viewfinder (16). However, Shono does not teach that the camera can also have a LCD display. Furthermore, Shono teaches that the camera will capture a digital image. It is inherent that the digital camera include a memory to store the image captured by the CCD image sensor. However, Shono does not teach that the memory is used for storing an image data produced by the image sensor before the movement of the optical element, and a controller for displaying the image data stored in the memory on the display when the optical element is moving.

Sawanobori et al teaches in Figures 1 and 2 the use of a digital camera that uses a Half-mirror (14c) to allows a digital camera to have a viewfinder (14) and an LCD display (17). Sawanobori et al teaches on Column 1, Lines 16-27 and Column 4, Lines 13-26 and on Column 5, Lines 40-65 that it is advantageous to display on an LCD in real time the images captured by the CCD image sensor so that an image that is corrected using white balance can be displayed by the camera operator before the image is captured using a recording operation. Sawanobori et al teaches that during a monitor through mode the image captured by the image sensor is stored in an image memory and is then output to the LCD display. Furthermore, because the image is displayed on the LCD screen in real time, the image would be displayed at all times and therefore, would be displayed before, during and after an instruction to move the quick return mirror was executed.

Allowable Subject Matter

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5: Claims 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6: Claims 1-8 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The Prior art does not teach The use of a controller for displaying the image data stored in the memory on the display from the provision of the instruction by the instruction member to the end of shooting of the image to be recorded into the recording medium.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5,459,511 Uehara et al teaches the use of a camera with a half mirror and a quick return mirror; USPN 6,639,626 Kubo et al teaches the use of a camera with a viewfinder (303a) a half mirror (M1) and driving means to move the half mirror (28); USPN 4,757,387 Saito teaches an optical system for a SLR camera; USPN 4,809,076 Todaka et al teaches on Figure 5 the use of a digital camera that utilizes a half mirror a CCD and a viewfinder; USPN 6,710,808 Yamagishi teaches the use of a digital camera that has a dark image capture mode and a normal image capture mode in which images can be captured when the half mirror is in the optical path and out of the optical path; USPN 4,677,489 Nishimura et al teaches the use of a digital camera that has a viewfinder and a quick return mirror.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hannett whose telephone number is 703-305-7880. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2612

JMH
June 2, 2004


WENDY R. GARBER
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